

Work Order ID 67795

Wednesday, March 30, 2011 11:36:25 AM



Page 1

Item ID: D3183-044

Accept



Setup Start



Revision ID:

Stop



Item Name: Bracket Assembly

Start Date: 3/30/2011 Start Qty: 5.00



Cust Item ID:

Required Date: 4/4/2011 Req'd Qty: 5.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D3183	Rev C1
-------	--------

100

0.00



BAND SAW

Bandsaw

Memo

0.00

amh 11/04/13

5

Jeaspa Bandsaw

Cut blanks: (1.500" x 2.250") 5.500" long

110

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

amh 11/04/14

5

HAAS CNC vertical machine #1

1-Machine D3183-4 as per Folio FA322 and Dwg D3183-
4 2-Deburr 3-Scribe batch number

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

amh 11/04/14

5

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 67795

Wednesday, March 30, 2011 11:36:25 AM

Page 2

Item ID: D3183-044

Accept

Revision ID:

Item Name: Bracket Assembly

Start Date: 3/30/2011 Start Qty: 5.00

Required Date: 4/4/2011 Req'd Qty: 5.00

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

B-A 11/04/18

5

φ

Quality Control

140

Small Fab

0.00



Small Fab

Memo

0.00

SB 11/04/19

5

Small Fab

Assemble D3183-043 as per Dwg D3183.

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

SB 11/04/19

5

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Work Order ID 67795

Page 3

Wednesday, March 30, 2011 11:36:25 AM

Item ID: D3183-044

Accept



Setup Start



Revision ID:

Stop



Item Name: Bracket Assembly

Start Date: 3/30/2011 Start Qty: 5.00



Cust Item ID:

Required Date: 4/4/2011 Req'd Qty: 5.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

Identify as per dwg & Stock Location: 236

0.00



Packaging

Memo

0.00

Packaging

11/4/19 50 SL

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/4/20 SLu 6.04.20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Wednesday, March 30, 2011 11:36:31 AM

Page 1

Work Order ID: 67795

Parent Item: D3183-044

Parent Item Name: Bracket Assembly



Start Date: 3/30/2011

Required Date: 4/4/2011

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP Rev:Pick:A 04.02.18 New issue KJ/DS
IPP Rev:B Changed Mat Size 08-06-26 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3183-045 		Manufactured	No			100	Each	0.0000	2	10			
Bearing Assembly							B 67520			SB 11/04/19			(4)
D3121-21 		Manufactured	No			140	Each	0.0000	2	10			
Bolt							B 68244			SB 11/04/19			(4)
M174B1.500X02.250 		Purchased	No			140	f	35.8333	0.4583	2.412105			
17-4 SS Bar 1.50 X2.250													

Location

MAT031

108309

113568

→ 115806

Loc Qty

35.8333

1.08

11.8333

22.92

Loc Code

2.412 on 11/04/13

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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	<i>67725</i>
Description: Bracket		Part Number:	D3183-4
Inspection Dwg: D3183	Rev: C1	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	<i>R.190</i>	<i>—</i>		<i>Rad-gage</i>	
R0.063	+/-0.010	<i>R.063</i>	<i>—</i>		<i>"</i>	
0.182	+/-0.010	<i>.184</i>	<i>—</i>		<i>Vern HL-7</i>	
0.070	+/-0.010	<i>.068</i>	<i>—</i>		<i>"</i>	
0.100	+/-0.010	<i>.103</i>	<i>—</i>		<i>"</i>	
Ø0.201 x 0.100	+/-0.010	<i>Ø.201 x .097</i>	<i>—</i>		<i>"</i>	
0.182	+/-0.010	<i>.184</i>	<i>—</i>		<i>"</i>	
5.32	+/-0.030	<i>5.330</i>	<i>—</i>		<i>"</i>	
5.036	+/-0.010	<i>5.040</i>	<i>—</i>		<i>"</i>	
2.120	+/-0.010	<i>2.120</i>	<i>—</i>		<i>"</i>	
1.290	+/-0.010	<i>1.286</i>	<i>—</i>		<i>"</i>	
0.365	+/-0.010	<i>.365</i>	<i>—</i>		<i>"</i>	
0.218	+/-0.010	<i>.214</i>	<i>—</i>		<i>"</i>	
1.030	+/-0.010	<i>1.027</i>	<i>—</i>		<i>"</i>	
1.90	+/-0.030	<i>1.888</i>	<i>—</i>		<i>"</i>	
1.012	+/-0.010	<i>1.010</i>	<i>—</i>		<i>Test indicator</i>	
Ø0.201 x 0.100	+/-0.010	<i>Ø.202 x .100</i>	<i>—</i>		<i>Vern HL-7</i>	
0.786	+/-0.010	<i>.782</i>	<i>—</i>		<i>Test indicator</i>	
Ø0.392	+0.002/-0.000	<i>Ø.3924</i>	<i>—</i>		<i>Micr HL-08</i>	
R0.19	+/-0.030	<i>R.190</i>	<i>—</i>		<i>Rad-gage</i>	
3.954	+/-0.010	<i>3.955</i>	<i>—</i>		<i>Vern HL-7</i>	
0.162	+/-0.010	<i>.155</i>	<i>—</i>		<i>"</i>	
R0.19	+/-0.030	<i>R.190</i>	<i>—</i>		<i>Rad-gage</i>	
R0.25	+/-0.030	<i>R.250</i>	<i>—</i>		<i>"</i>	
4.26	+/-0.030	<i>4.261</i>	<i>—</i>		<i>Vern HL-7</i>	
2.800	+/-0.030	<i>2.800</i>	<i>—</i>		<i>"</i>	
Calculated dimension						
0.162	+/-0.010	<i>.160</i>	<i>—</i>		<i>"</i>	
0.615	+/-0.010	<i>.619</i>	<i>—</i>		<i>"</i>	
0.435	+/-0.010	<i>.435</i>	<i>—</i>		<i>"</i>	
0.200	+/-0.010	<i>.200</i>	<i>—</i>		<i>"</i>	
0.381	+/-0.010	<i>.385</i>	<i>—</i>		<i>"</i>	
0.032	+/-0.010	<i>.030</i>	<i>—</i>		<i>"</i>	

Measured by: <i>MR</i>	Audited by: <i>B.A</i>	Preliminary Approval:	N/A
Date: <i>11/04/14</i>	Date: <i>11/04/18</i>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-044	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	04.06.15	Dimension 2.800 was 2.080; removed 1.155, 0.36 dimensions	KJ/JLM	
D	06.03.09	Dwg Rev update	KJ/JLM	
E	08.01.16	Dimensions revised	KJ/EC/DD	
F	10.09.23	Dimensions revised	KJ	<i>MA</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

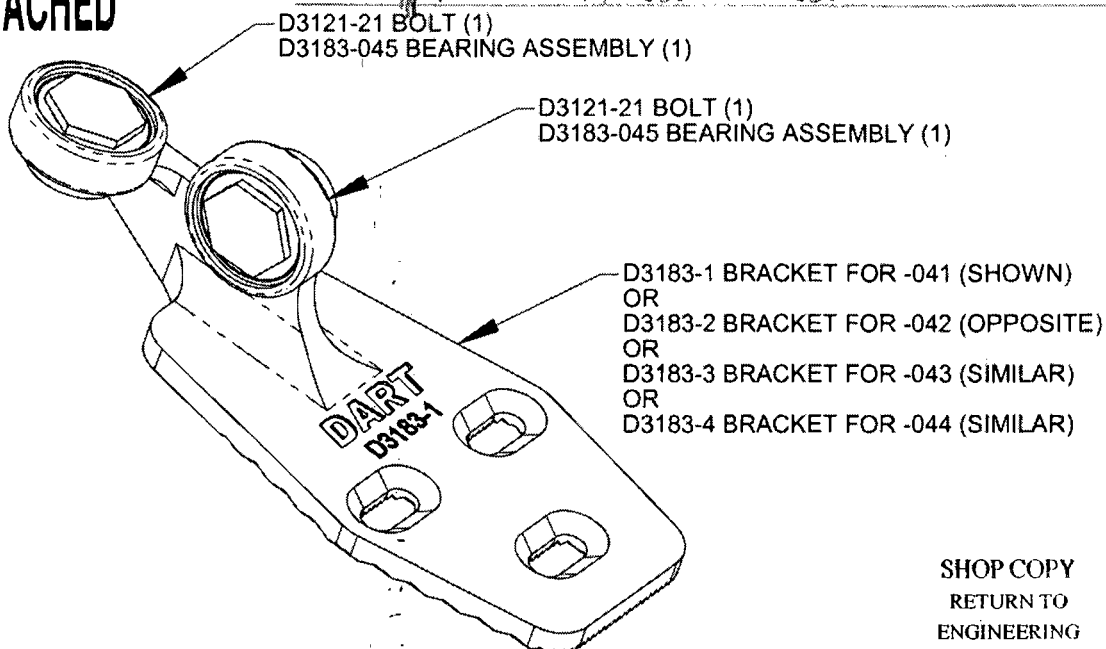
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



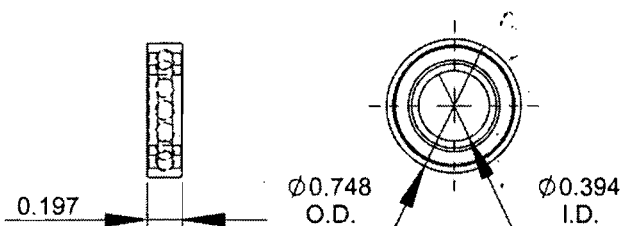
DESIGN #	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
CI	04.11.09	0.830 WAS 0.850	

RELEASED
04 03 01
DEO ATTACHED



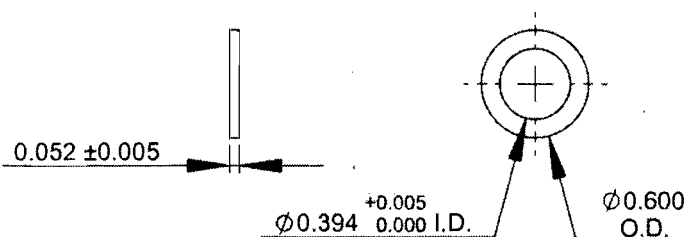
D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 67795
M11-03-20



D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

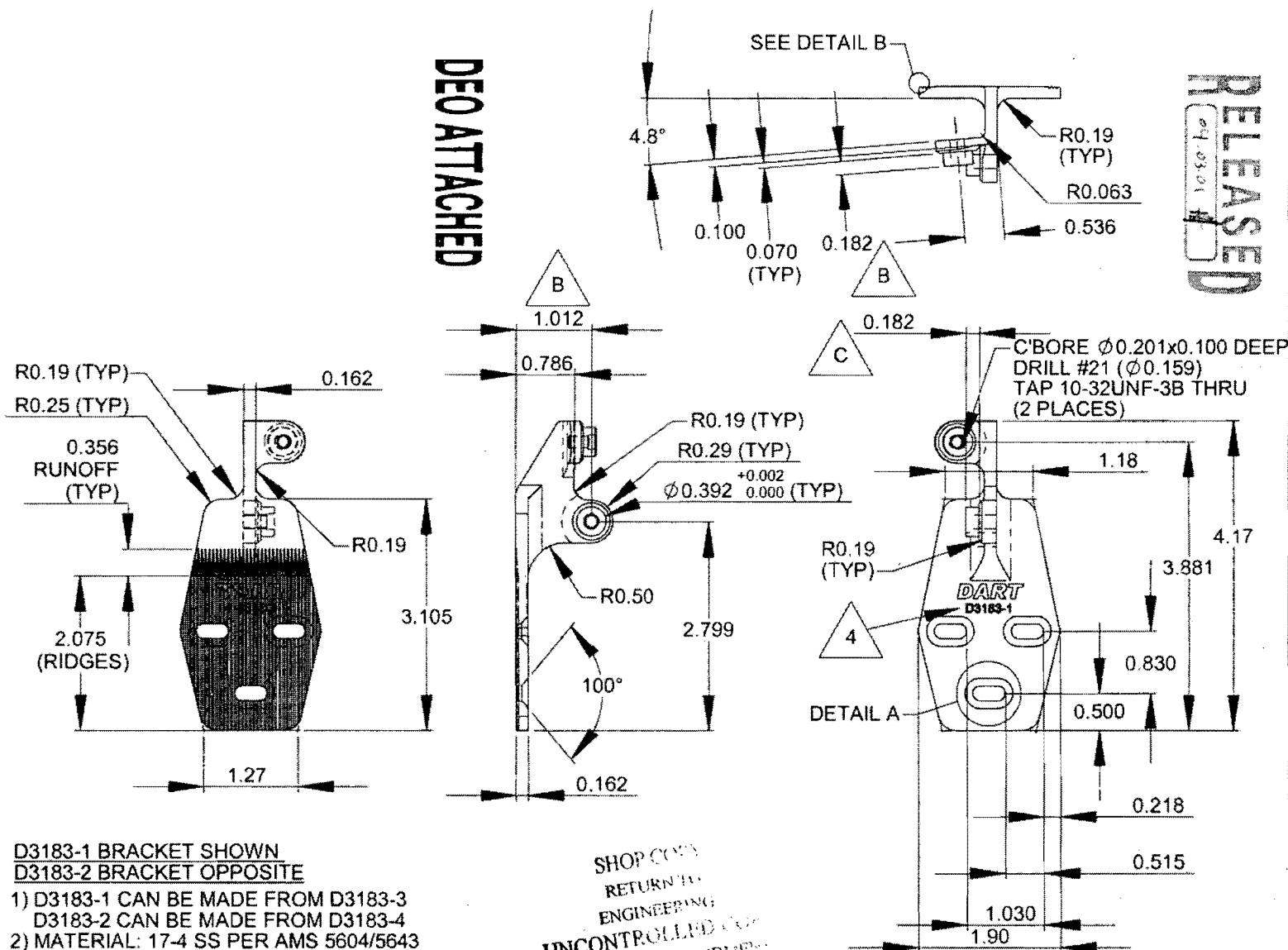
DART



DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE	TITLE	REV. C
04.02.17	D3183	SHEET 2 OF 4
	BRACKET ASSEMBLY	SCALE 1:2

RELEASED
04.03.01

DEO ATTACHED



**D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE**

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

SHOP COPY
RETURN TO
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SUBJECT TO AMENDMENT
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WORK ORDER
NO. 47795

M11 0330

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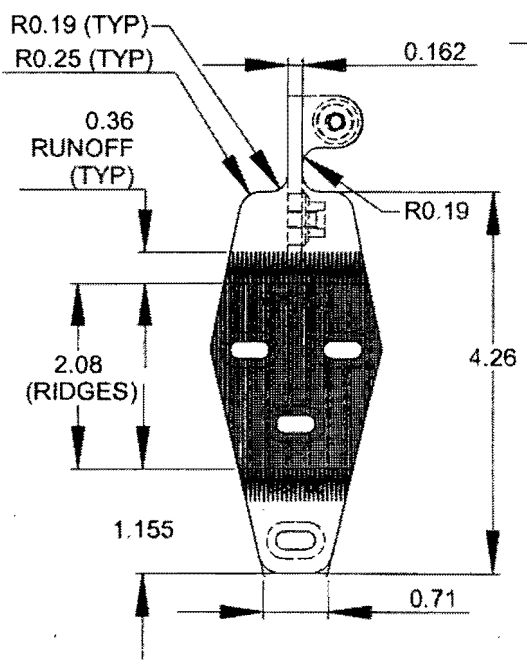
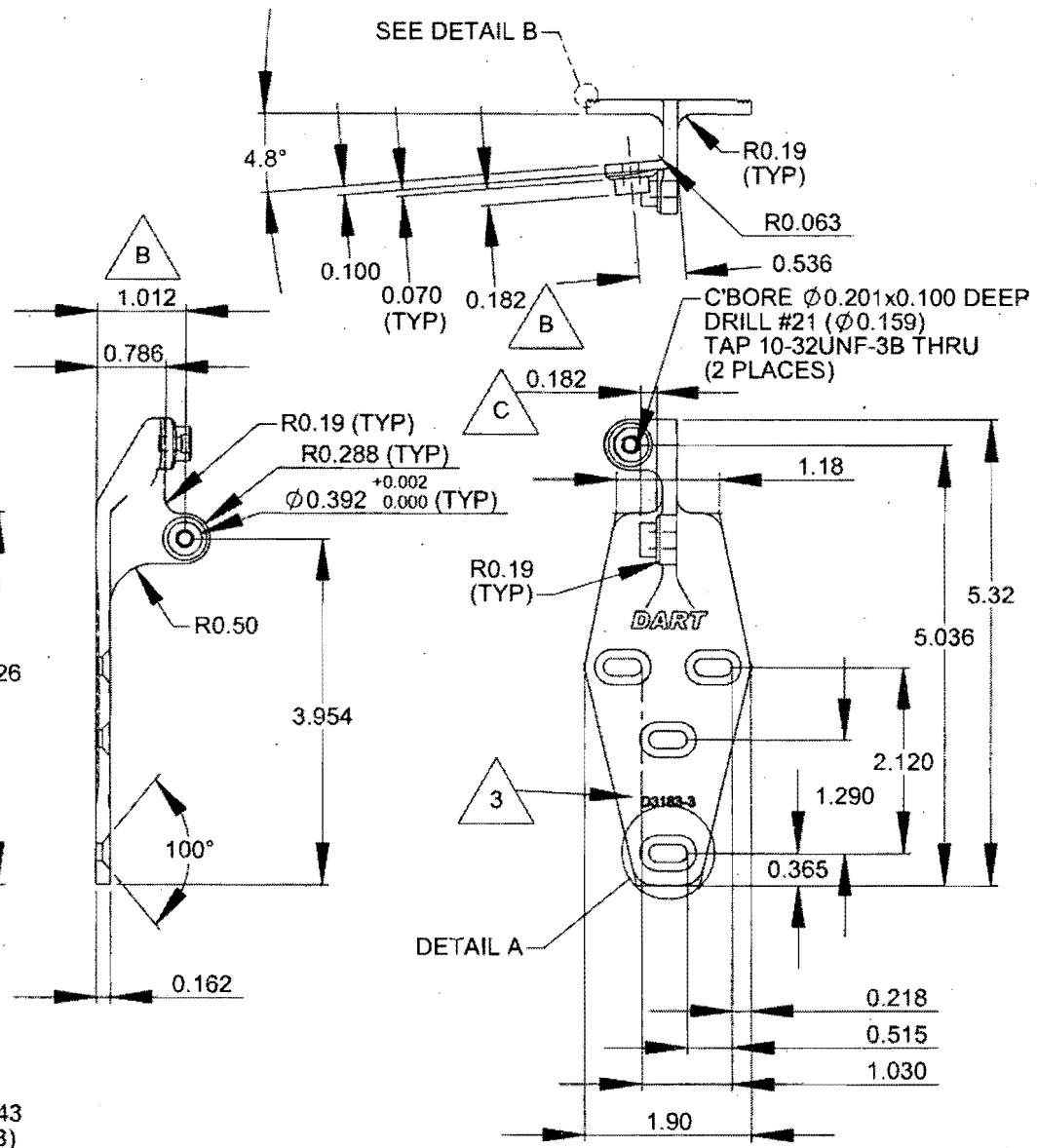
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NOTE: Date & initial all entries

DART



DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. C
DATE		D3183	SHEET 3 OF 4
04.02.17		TITLE	SCALE
		BRACKET ASSEMBLY	1:2



D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

u/b 6795

DEO ATTACHED

RELEASED

24 03 01

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

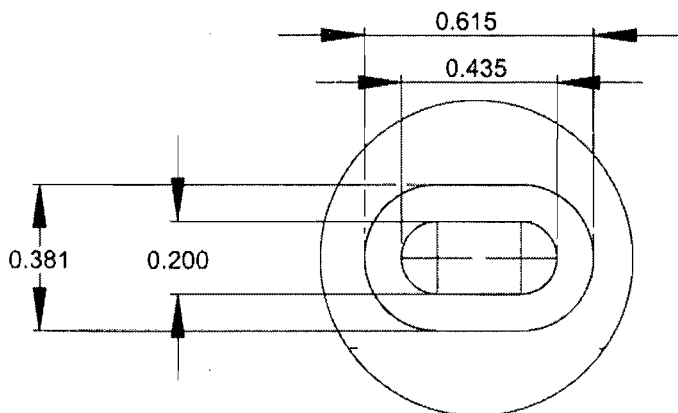
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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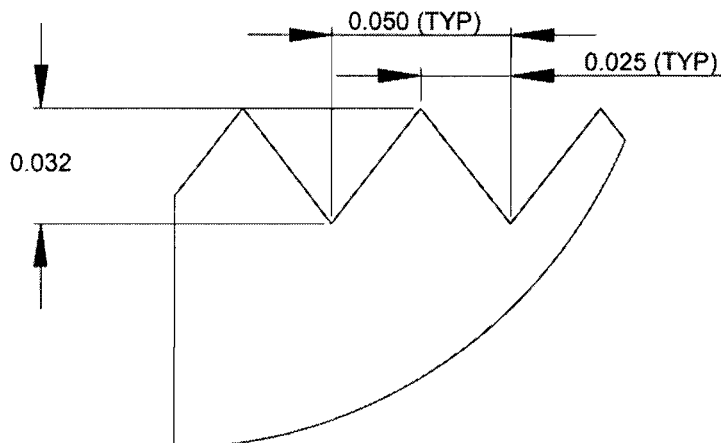
DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1



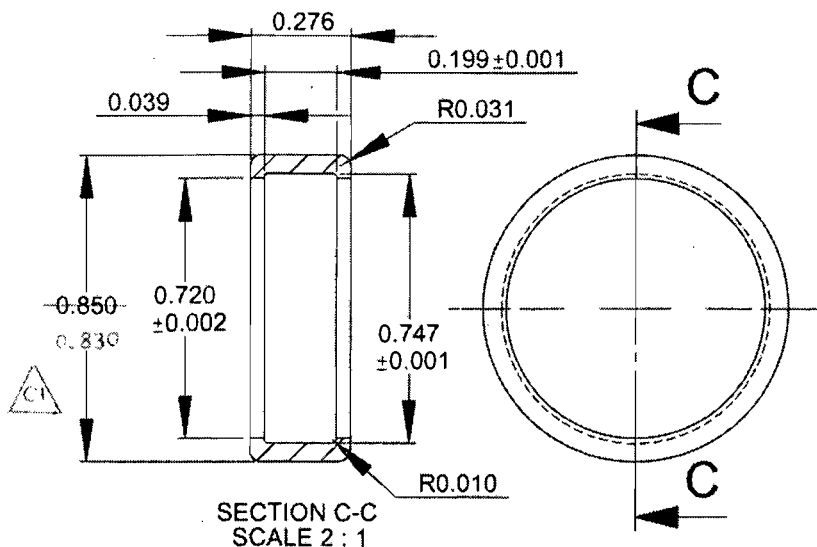
DETAIL A (2 : 1)

RELEASED
04 23 21

DEO ATTACHED



DETAIL B (20 : 1)



D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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NOTE: Date & initial all entries

DRAWING NO. D3183	TITLE BRACKET ASSEMBLY	REV C1	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3183-C1-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>qp</i>	CHECKED <i>sk</i>	MFG. APPR. <i>MA</i>	APPROVED <i>MP</i>	DE APPR. <i>MP</i>			
DATE 10.05.14	DATE 10.06.30	DATE 10.06.30	DATE 10/06/30	DATE 10/06/30			

D3183-5 BEARING

ADD POSSIBLE SUPPLIER: KML P/N 6800-ZZ

BASIC LOAD RATING REQUIREMENT: Cr = 1720 N (386 lb) MIN [DYNAMIC]
Cor = 840 N (188 lb) MIN [STATIC]

REF PAR 10-012

u67795

RELEASED
2010-07-22
MP

W/O:		WORK ORDER CHANGES					
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